



AL MAGNIFICO RETTORE
DELL'UNIVERSITA' DEGLI STUDI DI MILANO

COD. ID: 4899

Il sottoscritto chiede di essere ammesso a partecipare alla selezione pubblica, per titoli ed esami, per il conferimento di un assegno di ricerca presso il Dipartimento di Scienze Biomediche e cliniche "L.Sacco"

Responsabile scientifico: _____ Prof. Fabio Corsi _____

Francesco Mainini
CURRICULUM VITAE

INFORMAZIONI PERSONALI

Cognome	Mainini
Nome	Francesco
Data Di Nascita	18/08/1983

OCCUPAZIONE ATTUALE

Incarico	Struttura
Ricercatore Postdoc 7/2020-Corrente	Istituto Nazionale dei Tumori, Milano
Ricercatore Postdoc 6/2019-12/2019	Ospedale San Raffaele, Milano
Ricercatore Postdoc 9/2018-6/2019	Istituto di ricerca Humanitas, Pieve Emanuele
Ricercatore Postdoc 12/2016-7/2018	Centro de Investigación en Medicina Molecular y Enfermedades Crónicas (CiMUS), Santiago de Compostela, Spain.
Dottorato di ricerca 2011-2016	University of Otago, Dunedin, New Zealand
Ricercatore 1/2008-12/2009	Molecular Biotechnology Center, Turin

ISTRUZIONE E FORMAZIONE

Titolo	Corso di studi	Università	anno conseguimento titolo
Laurea triennale	Biotechnologie	Torino	2005
Laurea Magistrale	Biotechnologie Molecolari	Torino	2007
Dottorato Di Ricerca	Patologia	Dunedin, Nuova Zelanda	2016

LINGUE STRANIERE CONOSCIUTE

lingue	livello di conoscenza
Inglese	Eccellente

PREMI, RICONOSCIMENTI E BORSE DI STUDIO

Università degli Studi di Milano - Direzione Risorse Umane
Ufficio Contratti di formazione e Ricerca
Via Sant'Antonio 12 - 20122 Milano, Italia
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UNIVERSITÀ DEGLI STUDI DI MILANO

2011	PhD scholarship: Cancer Research New Zealand training scholarship
2016	PostDoctoral scholarship awarded by the Spanish government for the project NANOT-AID
2020	Postdoctoral scholarship awarded by Ministero della salute (Italy). Program ERANET-MICROTER

ATTIVITÀ DI FORMAZIONE O DI RICERCA

2015: Co-supervisor for the laboratory practical course, Foundations in Human Pathology (PATH201) and Advanced Pathology (PATH301), University of Otago, New Zealand

2014: Co-supervisor for the laboratory practical course, PATH201, PATH301 and Cancer Biology (PATH302), University of Otago, New Zealand

2012: Co-supervisor for the laboratory practical course, Human Body Systems 1 (HUBS191) and MED2 module 1, University of Otago, New Zealand

2-5/2012: Lecture supervisor, Cell and Molecular Biology (CELS191), University of Otago, New Zealand

Since 2011: I trained BsC and MsC students in the lab of Prof. Mike Eccles at Otago University, New Zealand. I have continued training students during my post-docs at CIMUS, Humanitas Research Institute, San Raffaele Hospital and Istituto Nazionale dei Tumori.

ATTIVITÀ PROGETTUALE

Anno	Progetto
2020-2021	Synergistic anticancer therapies for FGFR-altered tumors.
6/2019-12/2019	The influence of oncometabolites on the crosstalk between immune cells and cancer cells in the tumor microenvironment.
2017-2019	INTRATARGET -Development and testing of nanocarriers for the delivery of TLR ligands aimed at reprogramming the tumor microenvironment using <i>in vitro</i> and <i>in vivo</i> tumor models.
2011-2016	Development of a new microparticle vaccine adjuvant with the ability to deliver peptides and siRNAs to dendritic cells to elicit an anti-tumor response.
2008-2009	MEDITRANS -Development of new nano-size particles as MRI probes for Molecular Imaging.

CONGRESSI, CONVEGNI E SEMINARI

Data	Titolo	Sede
10-13/9/2019	Poster: Reprogramming Macrophages using Toll Like Receptor Ligands-loaded Polymeric Nanoparticles for the treatment of Lung Cancer	Munich, Germany
21-24/7/2019	Poster: Reprogramming Tumor Associated Macrophages using Resiquimod-loaded Polymeric Nanocapsules for the treatment of Lung Cancer	Valencia, Spain
23-24/4/2017	Presentazione Orale: Development of a new microparticle vaccine adjuvant with the ability to deliver peptides to dendritic cells in order to boost the immune response against tumors.	Santiago de Compostela, Spain

PUBBLICAZIONI

Università degli Studi di Milano - Direzione Risorse Umane
Ufficio Contratti di formazione e Ricerca
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Libri

1) Anfray, C.; Mainini, F.; Andón, F.T. Nanoparticles for immunotherapy. *Frontiers of Nanoscience*; Elsevier Ltd, 2020; Vol. 16, pp. 265-306. (first co-author) book chapter

Articoli su riviste

1) Torretta S, Scagliola A, Ricci L, Mainini F, Di Marco S, Cuccovillo I, Kajaste-Rudnitski A, Sumpton D, Ryan KM, Cardaci S. D-mannose suppresses macrophage IL-1 β production. *Nature Communications*. 2020 Dec 11;11(1):6343. *IF₂₀₁₉ 12.121

2) Dacoba TG, Anfray C, Mainini F, Allavena P, Alonso MJ, Torres Andón F, Crecente-Campo J. Arginine-Based Poly(I:C) -Loaded Nanocomplexes for the Polarization of Macrophages Toward M1-Antitumoral Effectors. *Frontiers in Immunology*. 2020 Jul 7; 11:1412. *IF₂₀₁₉ 6.429

3) Mainini F, Eccles MR. Lipid and Polymer-Based Nanoparticle siRNA Delivery Systems for Cancer Therapy. *Molecules*. 2020 Jun 10;25(11):2692. *IF₂₀₁₉ 3.267

4) Scagliola A., Mainini F., Cardaci S. The TCA Cycle at the Crossroad between Cancer and Immunity. *Antioxidants & Redox Signaling* 2019, Dec 17. doi: 10.1089/ars.2019.7974. IF₂₀₁₉ 6.323 (first co-author)

5) Mainini F., Larsen D., Webster G., Young S., Eccles M. MIS416 as a siRNA delivery system to target dendritic cells. *Nucleic Acid Therapeutics* 2018; 28(4): 225-232. doi: 10.1089/nat.2017.0695. IF₂₀₁₈ 3.780

6) Mainini F., Larsen D., Webster G., Young S., Eccles M. Bridging small molecules to modified bacterial microparticles using a disulphide linkage: MIS416 as a cargo delivery system. *PLoS One* 2015; 10(12): e0145403. doi: 10.1371/journal.pone.0145403. IF₂₀₁₅ 3.057

7) Sanino A., Dastrù W., Mainini F., Delli Castelli D., Aime S., Terreno E. Polymeric vesicles loaded with gadoteridol as reversible and concentration-independent magnetic resonance imaging thermometers. *Journal of Biomedical Nanotechnology* 2014; 10(8): 1620-6. doi: 10.1166/jbn.2014.1833. IF₂₀₁₄ 5.338

8) Torres E., Mainini F., Napolitano R., Fedeli F., Cavalli R., Aime S., Terreno E., Improved paramagnetic liposomes for MRI visualization of pH triggered release. *Journal of Controlled Release* 2011; 154(2): 196-202. doi: 10.1016/j.jconrel.2011.05.017. IF₂₀₁₁ 5.732

9) Delli Castelli D., Dastrù W., Terreno E., Cittadino E., Mainini F., Torres E., Spadaro M., Aime S. In vivo MRI multicontrast kinetic analysis of the uptake and intracellular trafficking of paramagnetically labeled liposomes. *Journal of Controlled Release* 2010; 144(3): 271-9. doi: 10.1016/j.jconrel.2010.03.005. IF₂₀₁₀ 7.164

Atti di convegni

Mainini, F., Eccles M., Young S., Larsen D., Webster G. Development of a new microparticle vaccine adjuvant with the ability to deliver peptides to dendritic cells. International Congress of Immunology (ICI), 22-27/8/2013, Milan, Italy.

Mainini, F., Eccles M., Young S., Larsen D., Webster G. Development of a new microparticle vaccine adjuvant with the ability to deliver peptides to dendritic cells. Queenstown Molecular Biology Meeting, 22-8-2012, Queenstown, New Zealand.

Cittadino E., Delli Castelli D., Lanzardo S., Mainini F., Terreno E., Aime S. In vivo MRI multicontrast kinetic analysis of intracellular trafficking of liposomes. 5th European Molecular



Imaging Meeting, 26-29/5/2010, Warsaw, Poland.

ALTRE INFORMAZIONI

First Certificate of English: B2

Corsi post Laurea:

3/4-2014: Module 3 animal training, dedicated to animal welfare for *in vivo* experiments, University of Otago, Dunedin (New Zealand).

2011-2014: AWO VLA training for vertebrate animals for *in vivo* experiments (4 training sessions, one each year), University of Otago, Dunedin (New Zealand).

13-17/10/2008: Synthesis, physico-chemical characterization and assessment of Lanthanide-based MR-Imaging Probes for cellular labeling course (organized within the training activity of the European network of excellence DIMI Diagnostic Molecular Imaging), University of Turin (Italy).

1-5/9/2008: National school of NMR, basic course in NMR, University of Turin (Italy).

Le dichiarazioni rese nel presente curriculum sono da ritenersi rilasciate ai sensi degli artt. 46 e 47 del DPR n. 445/2000.

Il presente curriculum, non contiene dati sensibili e dati giudiziari di cui all'art. 4, comma 1, lettere d) ed e) del D.Lgs. 30.6.2003 n. 196.

Luogo e data: _____Milano_____, _____1/03/2021_____

FIRMA Francesca Minin